Natural Resources Highlights

Spring 2009

A Plant Community in Peril

Recent colonization and rapid population increases of white-tailed deer on Sand and York Islands are putting rare plant communities in peril. These islands provide a glimpse of what northern Wisconsin used to be - places that have not been impacted by deer, where plant communities characterized by the evergreen shrub Canada yew still exist on a landscape scale. Of the 21 islands within the park, only 8 were not populated by deer. Two of those are very small islands with colonial bird colonies (Gull and Eagle islands). Of the remaining six, deer have recently colonized and rapidly expanded their populations on Sand and York islands.

"Before" Deer Browse on York Island (2003)

Ongoing monitoring of deer browsing and pellet (deer poop) counts on Sand and York show increasing impacts on Canada yew and other important species. Browsing is causing widespread die-off of large patches of Canada yew. In an effort to save this rare plant community, the park has been making intensive efforts to reduce deer populations on these islands. In 2008, the deer population on Sand Island was reduced by 23. On York Island the population was reduced by 4. Deer population in sensitive plant communities will continue to be an ongoing management issue for the Apostle Islands, so stay tuned for results of the 2009 browse survey and population reduction efforts.

"After" Deer Browse on York Island (2005)

Piping Plover chick

Piping Plovers – Wisconsin's Rarest Bird

The wide beaches of the Apostle Islands are the only places in Wisconsin where the piping plover has successfully nested in recent years. With the help of state, federal, tribal, and private partners, critical nesting habitat for this federally endangered species is now protected. Surveys are conducted in May to find nesting birds and fenced exclosures are established around each nest. These exclosures allow the birds ready access to the nest, but protect the nest from predators. An area around the exclosures is closed to the public to minimize human disturbance. The chicks are banded to allow easy identification. This helps determine where nesting birds are from and whether they've nested here before.

In 2008, two piping plover monitors were stationed on Long Island to monitor and protect the plovers and to educate park visitors about this rare bird. Six pairs of plovers settled on Long Island beaches for the summer in 2008, 5 pairs nested, and a total of 6 chicks successfully fledged. That number is down from 2007, but is similar to the number of fledglings from 2006. In 2009, two monitors will once again be out on Long Island providing a watchful eye over nesting plovers. Let us hope for big sand beaches and another successful nesting season.

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Tread Lightly – restoration of our fragile sandscapes

Cat Island Sandscape

The park's many sandscapes are special areas – both to visitors and ecologically. In these harsh environments, plants are growing in nothing more than sand. Although adapted to storms and poor soil, the plants are very sensitive to human trampling. Monitoring is done to check the pulse of these important plant communities and determine when active management may be needed. Sandscape restoration has been done on Oak, South Twin and Raspberry islands using a combination of native plants and floating boardwalks. Plants used for restoration are grown from seed or other plant materials collected in the park. In 2009, over 7,000 plants will be arriving mid-May for placement in their new home on Cat or Long islands. These plants were grown by the Natural Resource Conservation Service and Wildflower Woods. Although restoration efforts have been fairly successful, preventing impacts is more effective. Visitors and staff can help by using floating boardwalks and not walking on fragile dune plants.

Clean Your Tools and Feet – stop the spread of exotics

Exotic plants like to hitchhike on the soles of our shoes, gear, tools, equipment, and in fill transported to and from the islands. Spotted knapweed is an example of a highly invasive exotic plant that poses a serious threat to the park's sandscapes. This invader has appeared primarily after construction projects - at Meyers Beach, Outer and Raspberry islands. The park, with the assistance of the exotic plant management team (EPMT), has been aggressively treating these populations. Fortunately, populations on Outer and Raspberry are small enough that there is hope of eradication. Spotted knapweed is widespread at Meyers Beach, and the risk of visitors spreading seeds is unfortunately quite high. Early detection of exotic species is critically important. Annual surveys of the park's major sandscapes are done to look for knapweed and other aggressive invaders. The good news is that no new populations were found in 2008 and it appears that a very small population of knapweed on Stockton Island was eradicated. Everyone's help is needed to stop the spread of exotics. Make sure to clean tools, equipment, and shoes when traveling to or from the islands. Like turning off a light when you leave a room, it may be a small step, but it could have a big impact.

Spotted Knapweed

Fungus Among Us – Slowing The Spread Of Gypsy Moths

Surveys in 2008 by the U.S. Forest Service found that applications of the gypsy moth fungal pathogen *Entomophaga maimaiga* introduced to Basswood and Stockton islands in 2006 and 2007 were successful. It is too soon to tell, but we hope that this natural biological control will have an impact on the Apostle Islands' gypsy moth population. You may have seen the green "delta" and "egg carton" moth traps on the islands in recent years. These traps are not a means of population control, but a monitoring tool that has helped us document the rapid spread of the gypsy moths. Gypsy moth presence in the Apostles is significant because we are a "hot spot", well in advance of the western expansion of the exotic pest. The moth is the most serious pest of oak and other hardwood forests in the eastern U. S.. Now that gypsy moths are in large numbers on almost all of the islands, monitoring will focus on fall egg mass surveys that can be used to predict forest defoliation in following years, and hopefully make predictions on forest health.

Apostle Islands to the Alps - boy are my wings tired!

One of twenty peregrine falcons that were banded on Outer Island in 1993 as part of a fall migratory bird survey has been found (dead) in the Alps on the Swiss-Italian border this year. It is not unusual for peregrine falcons to travel long distances (it is 4,389 miles to the Alps). Peregrines have one of the longest migrations of any North American Bird. What is unusual is that this falcon decided to fly east across the Atlantic, instead of to South America. This migratory information, a result of banding birds in the Apostles, put a starting point in this particular bird's fantastic 16 year journey.

Banding peregrine falcons on Outer Island in 1993